

Journal no VI

Frederick V. Coville



1  
(Sunday) May 10, 1891

We reached Red Rock about 2 A.M. where we changed horses and got a cup of coffee. We reached the summit north of Red Rock at about sunrise, and at nine o'clock in the morning came to Indian Wells. We took breakfast here and changed both horses and driver. At about six o'clock in the afternoon we reached Haywood Meadows where we took supper and changed horses.



May 11, 1891.

Keeler, Inyo County, Cal.

We reached here this morning at 1:30 A.M. My saddle horse was left at Indian Wells to be brought in by the next stage.

The distances travelled yesterday and the day before by stage are as follows: Mojave to Red Rock  
; Red Rock to Indian Wells  
Indian Wells to Haywood Meadows  
; Haywood Meadows to Keeler

Mr. H. E. Wilkinson the U.S. Signal Officer here has very kindly given me the use of his office while in town.



May 12, 1891.

Keeler, Inyo Co., Cal.

I remained at Keeler to-day  
answering correspondence.



May 13, 1891

Keeler, Inyo County, Cal.

I remained at Keeler to-day  
arranging notes



May 14, 1891.

Keeler, Inyo Co., Cal.

I made a collecting trip to-day in the mesa between Keeler and Cerro Gordo Mt.

The soil is made up of stone broken up so as to be quite small, but little water-worn; and filled and drifted over with sand. The soil is quite alkaline, as indicated by slight deposits in favorable places, and is especially marked as differing from similar mesas in the other valleys by the absence of Larrea except for a short distance below the mouths of the canons and in the beds of the canon washes. The bushes of Larrea in these places appear very healthy, and flower and fruit profusely.

The following plants were



seen in addition to a few  
others collected. Alt. 3650 to 3700 ft.

1115 to 1125 m.

- Distichlis maritima
- Atriplex confertifolia
- Suaeda suffrutescens
- Cleome sparsifolia
- Cleomella obtusifolia
- Gilia leptomeria
- Oenothera scaevola purpurea
- Oenothera gaumeflora
- Atriplex parryi
- Franseria dumosa
- Sarcobatus vermiculatus
- Biscutella californica
- Krynitzkia circumscissa
- Eriogonum reniforme
- Malacothrix sonchoides
- Oenothera brevipes
- Lepidium fremontii
- Oryzopsis cuspidata
- Encelia eriocephala



May 15, 1891

Keeler, Inyo County, Cal.

I went collecting to-day along the lake shore about a mile northwestward from town and then struck into the mesa northward through the sand-hills about a mile and then returned direct to the town.

The lake is bordered near Keeler and as far as the mouth of Owen's River by a strip, from a hundred yards or even less to a mile in width, of clayey sand with a deposit of soda and salt upon it, the sand particles firmly enough held together to prevent drifting by the wind. This ground is firm, dry on the surface, but well supplied with more or less alkaline water be-



neath. On the margin of this strip farthest from the water there is an abundant growth of Distichlis maritima, scantily mixed in some places with other small herbs. In the densest soda deposits the salt-grass cannot grow however and a large part of the lake-shore is therefore utterly devoid of vegetation. In many places, however, springs of fresh, or nearly fresh, water come up along the beach; and these are surrounded by growths of tules (Scirpus foemina, S. olneyi, and rarely, at this part of the lake, S. lacustris occidentalis) and rushes (Juncus mexicanus).

In the salt-grass, which extends backward into looser less alkaline sand are commonly found



Nitrophila occidentalis

Heliotropium curassavicum

Cordylanthus

Atriplex

Cleomella parviflora brevipes

Juncus mexicanus

Scirpus nevadensis

Still farther back from the shore the sand is looser and but slightly alkaline on the surface so that it drifts readily and is piled into sandhills. The most conspicuous and abundant shrub of these sandhills is

Sarcobatus vermiculatus

accompanied by

Atriplex haysi

confertifolia

Baccharis suffrutescens

Back of the sandhills the mesa begins with

Atriplex confertifolia

Franseria dumosa

Atriplex hymenelytra



The following plants additional  
to those seen yesterday and to  
a few others collected today were  
seen

Chenopodium murale

Atriplex phyllanthoides

Chenopodium murale

Junonia sanguinea

Polygonum aviculare

Compositae, daisy-like, small white

Cordylanthus

Microphala occidentalis

Atriplex canescens

Sarcocolla chrysa

— condensata

— purpurea

— occidentalis

— granulosa



May 16, 1891

Keeler, Inyo County, Cal.

Drove today with Beth and the  
small Purple boys to Swansea  
and the marble quarry.

On the trip out we stopped at  
the old Swansea ranch then fol-  
lowed along the road at the base  
of the foot-hills to the marble-  
quarry. The earth-quake cracks  
between the ranch and the point  
of hill westward are still  
clearly discernible.

When near the marble quarry  
we took a cross road to the  
salt flat along the lake and  
returned by that road.

Several new plants were col-  
lected at the spring of the old  
Swansea ranch and on the  
lake near by some others were  
collected, besides the following

*Tridax* = *Tridax pulchella*



Lygobium virgata

Sesymbrium canadense

Scirpus fungosus

Chorizanthe rigida

Eriogonum chrysanthum

Bigelovia granulata

Arenaria californica

Lycium rostratum

" andersonii

Nicotiana

Chenopodium

Malvastrum stolonifera



(Sunday) May 11, 1890

Keeler, Inyo County, Cal.

I remained at Keeler today.

Mr. Thurston came in from  
Cottonwood Canyon for supplies, our  
party, Mr. Nelson and himself with  
to Ling. Ling encamped there.



May 15, 1890

Wagon G. Camp, Panamint Mts., Cal.  
 I left Keeler this morning  
 with Mr. Sumner by the Cotton-  
 wood Canyon trail, crossing the  
 southern end of the Inyo Mts.  
 just south of Lone Pine Mt.  
 and descending nearly two thou-  
 sand feet into an elevated valley  
 filled with Yucca arborescens, to  
 be known in these notes as  
 Yucca Valley. The trail then  
 gradually ascends about a thou-  
 sand feet westward passing  
 through a small narrow  
 cañon containing a poor water-  
 hole, and descends five hundred  
 feet or more to the divide be-  
 tween Panamint and Inyo Val-  
 leys. The camp is about two  
 miles westward from the  
 divide, about a half mile  
 west of Jackson Strong, about  
 50 yards from Cotton Creek.



The names following are defined to show what is hereafter meant by them.

Mill Canon Divide is the divide between the north end of Panamint Valley and Saline Valley.

Mill Canon is the canon running from this divide down into Panamint Valley.

Willow Creek Canon is the canon down which the stream from Jackass Spring flows, into Saline Valley.

A dry arm of Willow Creek Canon meets Mill Canon at Mill Canon Divide. This is known as the south fork of Willow Creek Canon.

Desert Mesa is the elevated plateau bounded on the south by the Angeles and Cross Mts., on the east by Panamint Valley, on the north by Saline Valley, and on the west by Cross Creek pass.



and Owens Valley.

Distance travelled Keeler to  
Willow Creek Camp about 20 miles.



May 19, 1891.

Willow Cr. Camp, Panamint Mts., Cal.  
 Altitude reading at camp  $6400\text{ ft.} = 1950\text{ m.}$   
 5350

Mrs. Tomaten and I went collecting this morning on the hillsides facing southward and lying just north of camp. This hillside is rocky (granitic) and is covered with a comparatively dense growth of shrubs. Its southerly slope prevents the growth of the Pinus monophylla, which is very abundant on the opposite side of the narrow valley occupied here by Willow Cr. Ch.

The lower part of the pinon has <sup>been well</sup> gone throughout the whole barren mesa is remarkable as being almost entirely devoid of Juniperus californica <sup>utahensis</sup>. On the slope around there was none of it nor does there appear ever to have been any, for no stumps are to be seen.



This hillside which, it should be noted is rocky and in granitic soil, is characterized by the following predominant shrubs

Epilobium, dark green viridis  
Rosa, indica glandulosa

Ceanothus

Loiseleuria, shrubby

The following plants were also seen on this hillside

Antennaria viridifolia

Bigelovia, stems stiff, leaves

Cynus, same as 227, condensatus

Ribes laticarpum?

Silene fungosa

Castilleja, smooth, tall

Rosa

Salix longifolia

lasiocarpa

} Along the creek

Polygonum capitatum dentatum

Lonicera no 764

Wiburnum no 238

Phacelia granatensis



*Opuntia rubra*

*Collinsia* same as 750

*Amisonebia*

*Viola aurea*

*Solidago*

*Montzelia*, same as 771, albicaulis

*Bigelovia gracilens*

*Raynoldsia circumscissa*

*Layia glandulosa*

*Arabis*, no 778, *pulehra*

*Phacelia ramosissima*

*Oryzopsis cuspidata*

*Astragalus*

*Eriogonum* astur

*Ononis*

*Eriophyllum*

*Anisocoma* acaulis

*Salvia columbariae*

*Mimulus multiflorus pubescens*

*Castilleja*

*Poa* no 781

*Stipa*

*Salvia glabrata*

*Eriogonum*, shrubby, with white flowers



Caulanthus crassicaulis

Thymus scoparius

Shrub, no 779 curvipes

Chamaecyparis nuytensis

Delphinium

Altitude reading at summit of hill  
9750. = 7600 ft. = 2315 m.

This afternoon Mr. Tamm and I ascended the hill with a camp. It is covered with Pinus monophylla on the north slope, down to the camp, but its uppermost part is probably of sub-pinon nature again as it bears no pinons and appears to run over from a slope of sub-pinon character on the south side.

The plants best abundant in the pinons and apparently characteristic of them are

Pinus monophylla

Ribes cereum ?

Artemisia tridentata

Lupinus, same as 769



Pos same as 781

Pos, no 782, californica.

The dense shade of the pines may have prevented some characteristic plants from growing in this particular place. However the pines are wanting Artemisia tridentata is especially abundant.

The following plants additional to those already recorded to-day were seen:

Prognathia flex-carpa

Arctostaphylos <sup>sp.</sup> multiflora

Salix incana, no 780

Agrostis

Erythronium

Salix, not alone with two stems long.

On the top of the hill in sub-pine ground was found the following not recorded this morning.

Salix venter

Taxa lyonii canadensis

Rosa white



= 7600 ft. 22315m

altitude reading at summit 9750 ft.



$= 6400 \text{ ft.} \approx 1950 \text{ m.}$

$$= 6400 \text{ ft.} \approx 1950 \text{ m.}$$

I went today to Mill Canyon Divide and returned on the Barron road two or three miles farther, the road bending around to the eastward, and then proceeded down a canon to its junction with Mill Canyon at the old mill. The canon down which I came I have called the south fork of Mill Canyon. After proceeding about a mile down the canon below its fork I returned up the main or north fork to Mill Canyon Divide, and returned to camp by the trail.

Altitude reading at Mill Canyon  
= 5650 ft. = 1720 m.  
Sample, on the way down, 8430 ft.

$$= 5658 \text{ A.} = 1720 \text{ m}$$



of the following plants

Dracopis polygaloides

ornatus

Cologyne ramosissima

Atriplex canescens

The plant most abundant just above these is Ephedra <sup>viridis</sup> <sub>^</sub> green.

In the lower edge of the pine on the north slope south of the divide.

Pinus mon

Pinus mon

The lower edge of the pine is a very gradual slope in at a reading of 5600 ft. = 5800 ft. = 1770 m.

The north slopes and south slopes on small hills have present strikingly different appearances. The north slopes just below the pine ones are covered largely with Astragalus tridentatus; the south slopes, principally with dark green Ephedra <sup>viridis</sup> <sub>^</sub> and Parochia <sub>^</sub> glandulosa <sub>^</sub> and the resultant color.



are respectively gray and green.

Another conspicuous feature of the landscape due to slope exposure is brought out in this region by looking southward and northward at hills situated at about lower pinon line. In looking northward one sees scarcely a pinon, merely bare hills; while southward the slopes may be half covered with them.

On the plateau at a reading of  $5900 \text{ ft.} = 1800 \text{ m.}$   
of  $8700$  were

Juniperus californica utahensis

Artemisia tridentata

Ephedra viridis

Ephedra <sup>^</sup> dark green, and on occasional

Parishia tridentata glandulosa

On a gentle southwest slope at a reading of  $8600 = 5800 \text{ ft.} = 1770 \text{ m.}$

Coleogyne ruscissima was abundant

Juniperus californica utahensis <sup>^</sup> abundant.

Artemisia tridentata and

Ephedra viridis

Ephedra <sup>^</sup> dark green, about equal

At a reading of  $8550 = 5750 \text{ ft.} = 1755 \text{ m.}$



level plateau, where there were no rocks (the soil even before has been rocky), the main vegetation is

Chilodactylus <sup>nevadensis</sup> ~~glauca~~

Artemisia tridentata

Helianthus same as 886

Yucca (bracteifolia) <sup>arborescens</sup> ~~reginae~~ here

The old mill is 2100 ft below camp. = 4300 ft. = 1310m.

The south fork of Mill Cañon has no water, but the north fork is well supplied with small springs.

Altitude reading at camp at night = 6400 ft. = 1950m.

Following is a list of plants seen to-day in addition to those collected

Amelanchier tessellata abundant up to 10000

Artemisia

Argemone hispida

Artemisia spinescens

Artemisia tridentata

Aster (portifolius) mohavensis

Asclepias arcea



Audubertia incana Below pinnate

Baccharis (of stems)

Bigelovia tortifolia

Castilleja

Ceanothus

Chaenactis With Coleogyne

Claytonia perfoliata

Chenopodium leptocarpum

Cnicus

Coleogyne monacensis

C. frumosa

Malva

Urtica abundant just below

Erigeron annuus

Epilobium viridis

nevadensis

Equisetum no 500

Epipactis gigantea, no 500

Trigonotis no 500

Erigeron no 700 = Syntrichopappus <sup>frumosi</sup>

Erigeron montanus

Erigeron minutiflorus

Erigeron obtusifolius



Eriogonum lanatum At about upper limit, same

Galium

Silene filiformis In upper limit

Matthiola In upper limit  
inconspicua

Gnaphalium polygaloides

Helianthus, same as 766

Hedeoma =

Junonia mexicana

Silene

Junonia californica utahensis

Erigeron About 1500 ft. below

Erigeron ornatus

^ same as 767

Lycium

Lygodium

Monticola, same as 767, albicaulis

Monarda

Monarda salsola laevigata

Monarda laevigata

Monarda laevigata

Monarda laevigata

Monarda laevigata

Pectocarya utahensis 800

Pectocarya



Peucedanum, same as 745, parishii  
Cymoptera no 752 = Peucedanum vaseyi

Phacelia fruticosa

" racemosa

Purshia monophylla

Purshia fruticosa, no 801

Purshia tridentata glandulosa

Quercus, same as 822

Quercus no 825

" laevis

Salix myricina

Salix alba

Salix laevis

Salix laevis

Salix, same as 822

Salix, small, myricina

Salix fruticosa

Tetradymia canadensis

Thermopsis montana

Vitis

in upper part

Yucca (arborescens) arborescens



May 21, 1891.

Alt. 3200 ft. = 9750 ft. Camp, Saline Valley, Cal.

This morning I took a short ride to Jackson Spring from Miller Co. Camp, where I found additional

*Emilia* *sessilifolia*

Mr. Nelson, the land agent, took me to Mill Canyon Mouth, down the south fork of Mill Creek to its junction with the main canyon and down this to Saline Valley, camping just where the canyon opens into the valley. The main canyon contains more throughout its whole length, while the south fork is dry.

In the afternoon I collected from camp up the river about a mile.

The river has no more miles of the same but in Lower the upper portion is sub-lower and a few of the upper water slopes are Pinus monophylla



May 22, 1891

Willow Dr. Camp, Paramount Mts. Cal.  
I returned here from Lake  
Valley to this camp this morn-  
ing, by the same route taken  
in going down.

The plants seen yesterday and  
to-day are as follows:

alt. 3200 to 6400 ft. = 915 m. to 1950 m.

Artemisia tessellata

Artemisia tridentata 820

Artemisia, no 830, macradenia

Artemisia canadensis Com.

narrow leafed, with fruiting stalks

glabrous

Argemone linifolia

Trisetum barbatum

Artemisia (1) monspeliensis = 1

Antennaria biocolorata

Antennaria tridentata

Aster (tridentatus) mohavensis

Antennaria canadensis 782

Antennaria casei 747

Antennaria canadensis

Antennaria polypodiifolia

Antennaria arctica



Bouabara of wet soil

Bobbie juncea

Bigelovia parviflora

B. ... aplophus interior?

B. ... stratiglobus

B. ... longipolia

Castilleja of sub pinus

Castilleja of wet soil

Ceanothus melita

Ceanothus villosa

Cercis angustifolia

Chenopodium, no 6.3, album

Chenopodium, no 6.12, fremonti

Chaenactis

Cheilanthes angustifolia

Cheilanthes virens

Chrysanthemum brevicaule

Chrysanthemum viride

Chrysanthemum chubii

Claytonia perfoliata

Clematis ligusticifolia

Cnicus

Coleopogon ramosissimus

Cucurbita, with ... leaves



Dalen montana

Dalmanium

Dactylis montana

Daba sonorae

Daba sonorae = Cepella divaricata

Eleocharis alticola

Ellisia chrysanthemifolia

Ellisia sonorae 822, micrantha

Ellisia sonorae 824, condensatus

Ellisia condensatus botanoides

Ellisia fontinalis

Epilobium nevadense

Epilobium viridius

Epilobium giganteum

Epilobium sonorae 830

Epilobium botanoides

Erigeron alticola montana

Erigeron inflatus

Erigeron alticola montana

Erigeron alticola

Erigeron alticola montana

Eriophorum sonorae 834, ambiguum

Eriophorum ambiguum

Eriophorum ambiguum



Euphorbia albomarginata

Eurotia lanata

Festuca curvicaulis

Franseria dumosa

Gutierrezia no 831

Gilia filiformis

— latifolia

— matthiae

— same no 782

— same to microphylla, but hard to

Gryllus polytaenoides

Gutierrezia

Syntherisma fragularis

Helianthus, same no 836

Horsmania robusta, no 833 = Elymus sitanion

Hosackia no 819 = Lotus americanus

Iva umbellata no 832

Juncus laxiflorus

— mexicanus no 830

— utahensis

Juniperus californica utahensis

Krynitzkia torbigeri

— utahensis

— utahensis



Argemone racemosa

Larrea mexicana

Lepidium formosum

laevicaule

Lupinus with small pink flowers

same as 764

Chamaecrista ornatus

Lycium andersonii

coferi, no 826

smooth-stemmed. In Saline Valley

Monticola, same as 748, albicaulis

Mimulus luteus (glauca)

same as 807

Microstema californica

Hymenoclea salsola

Penstemon, no 811, ramosissimus

Vicia trifoliate

Notolacca parryi

Oenothera biennis

caespitosa

acephala fruticosa

no 820

same as 729, dentata

contorta fruticosa



Thunbergia laevigata

utile

Opuntia prostrata

Phoraria sericea

Pentstemon, glaucous, leaves - shaped with brown  
with narrow corolla

Phacelia fruticosa

" hispida

" canadensis

" purple with prominent leaves

" rotundifolia, no 5/14

Phoradendron bolleanum

Phragmites communis

Pinus resinosa

Populus

Asa

Palmetto, no 82, rivalis nullegrana

Linum pubescens

Pennisetum glaberrimum

Pennisetum indicum

no 829 = Forstiera parviflora

Plantago hypnoides

Plantago glandulosa



Ranunculus

no 523

Sabbatia no 511 = Erythraea exaltata

Salvia lasiocarpa

latifolia

longifolia

Salizaria maritima

Salvia columbiana

Scrophularia californica

Sarcocolla douglasii

Polypogon monspeliensis

Ceanothus americanus

Solanum elaeagnifolium

Solidago

serotina

Sparganium angustifolium, serotinum, angustifolium

no 522

Thalictrum flavum

the former

Pentstemon monardella

Stachys

Staphylea trifolia

Stipa

Strophocarpus, no 535, longiflorus



Tetradymia spinosa

Thamnosma montanum

Tricardium watsoni, no. 837

Typha

Vitis

Yucca (bracteata) arborescens

Phlox angustifolia Stansburyi

Amorcania acaulis

Mirabilis multiflora fulgens

Brickellia

Bouteloua, same as 775 = Festuca microstachya

Caulanthus canadensis

Composite same as 799 = Aplopappus interior

— — — — — 802 = Aplopappus monacii

— — — — — no. 839 = Crepis intermedia

— — — — — no. 829 = Deschampsia calycina

Altitude of Silver Valley camp 3200 ft. = 975 m.

— — — — — lower limit of pines 4000 ft. = 1219 m.

— — — — — upper limit of pines 3600 ft. = 1097 m.

The climate in Silver Valley, annual precipitation is about 10 inches. The following are the principal plants: yellow pine, brush, grass, agave, etc.



May 23, 1920

Kearl, Inyo County, Cal.

I returned from Willow Cr. Camp to-day by the same trail on which I went there.

Altitude near Willow Cr. Camp	6400 ft. = 1950 m.
" " Mill Canyon Divide	5650 ft. = 1720 m.
" " summit east of Yucca Valley	5300 ft. = 1610 m.
" " spring 4 miles from camp	5600 ft. = 1705 m.
" " Yucca Valley	5400 ft. = 1645 m.
" " lower portion, north slope from divide	5950 ft. = 1815 m.
" " crossing of Darwin-Coronado trail	7100 ft. = 2165 m.
" " summit overlooking Kearl	6700 ft. = 2040 m.
" " Kearl	3650 ft. = 1115 m.

Where the trail ascends the east slope of Cone Rock there is a small lateral valley, between Yucca Valley and Cone Rock mt., which is an interesting case of slope exposure. It is especially interesting as it appears not only to show the lower limit of *Pinus monophylla* as a line of varying altitude, but the *Yucca arborescens* actually appears above



the pinnacles. The following diagram shows the situation, the section being a vertical one from north to south. The distances were estimated.





(Sunday) May 29, 1891,  
Keller, Inyo Co., Cal.  
I remained at Keller to-day.



May 20, 1891.

Keeler, Inyo County, Cal.

I remained at Keeler today  
examining a catalogue of species  
so far seen.

I bought a horse for Beth  
today.



May 26, 1891.

Reelton, Inyo County, Cal.

I remained in town today  
writing on my report.



May 27, 1898

Kearney, Inyo County, Cal.

I went today with Beth to the cañon north from Swansea. It contains no water and is very hot and shallow. The following plants were seen in the cañon.

Yucca (Cortifolia) mohavensis

Artemisia tridentata

Artemisia tridentata

Borrichia fruticulosa

Borrichia longifolia

Cercocarpus arborescens

Chenopodium

Chorizanthe brevicornis

Chorizanthe rigida

Echinocactus polycephalus

Encelia fontescens

Eriogonum inflatum

Eriogonum inflatum

Eriogonum inflatum

Eriogonum inflatum

Eriogonum inflatum

Eriogonum inflatum

Eriogonum inflatum



Lilia longum

" triflorum

" florescens

" like insipidum but small - large

Kniphofia barbifera

" maculata

Larrea tridentata

Salicornia peruviana

" lanceolata

Lycium cooperi

Moraea oblongifolia

Medicago sativa

Melilotus (parviflorus) indica

Mentzelia (officinalis)

Mirabilis californica

Muhlenbergia viscida

Nicotiana trigonophylla

Oenothera biennis

Opuntia basilaris

Opuntia perfoliata

Petaluma

Pseudotsuga californica

Phacelia, officinalis var. purpurea



Calyptra muscaria

Calyptra colubariae

Senecio douglasii

Phlox scarlet, munroana

Stephanandra

Elipsa

Thelypodium, similar to Stanleya =  $\lambda$

Hymenoclea salicifolia



May 28, 1911

Ruler, Long County, Cal.

I was prevented from starting for Coos today by the continued sickness of my horse. I therefore began determining specimens that were collected since the last sending to the Department.



May 29, '89

Reber, Inyo County, Cal.

I remained at Reber to-day  
examining plants



May 30, 1891

Keeler, Inyo County, Cal.

I determined plants to-day.

Late in the afternoon Mr. Palmer's party came in from Coso. It consisted only of Gen. Fisher, Mr. Palmer and Mrs. Koch. They went into camp in the sand grass between Keeler and the lake.



(Sunday) May 31, 1891  
Keller, Fresno County, Cal.  
Remained in Keller today



June 2, 1911

• Ketchikan, Alaska, County, Cal.

I wrote up notes and catalogues today.



June 2, 1891.

Heeler, Inyo County, Cal.

Worked on notes and plants today



June 3, 1891

Keeler, Inyo County, Cal.  
Worked on notes and plants  
to-day.



June 4, 1891

Keeler, Inyo County, Cal.

Mrs. Palmer and her party went to Lone Pine today. Beth and I accompanied them as far as they went before lunch, about a mile north from the north end of Owens Lake.

They took what is known as the lower road passing the old adobe house between Green sea and the marble quarry.

At the Adobe House Spring the following plants were seen

Quercus californica

Juniper

Artemisia tridentata

Ranunculus acris

Poa

Scirpus pungens

Polygala monspeliensis

Zinnichella palustris

The following were also interesting plants seen at the



north end of the lake and along  
the river.

Abrochia canadensis 895

Abrochia canadensis

" confertifolia

" torreyi

Atriplex //

Blitum

Bala polyadenia

Elymus canadensis triticoides

Erigeron

Hesperis occidentalis

" occidentalis

Hesperis occidentalis lyotum

Poa

Poa annua

Oxyglossum (capitata) membranacea

Ranunculus repens

Tinctoria

Sarcobatus vermiculatus

Sarcobatus vermiculatus



June 5, 1891.  
Kearney, Inyo Co., Cal.  
Worked on plants and notes today



June 6, 1891

River, Inyo County, Cal.

Worked on plants and notes today.



(Sunday) June 7, 1891

Keeler, Inyo County, Cal.

Beth, Mrs. Wilkinson, and I went to Lone Pine today, and took dinner at the camp, at Harvey's ranch, about a half-mile north of the town.

In the afternoon Dr. Fisher, Mr. Palmer, Mrs. Wilkinson and I went to the cemetery then to the nearest point of the earthquake crack and then back by way of the swamp on Mr. Harvey's farm. I collected several specimens not before seen.

We reached Keeler on our return at about half past eight o'clock.



June 8, 1891.

Keeler, Inyo County, Cal.

I met this morning Mr. Frank Kennedy a prospector who has lived several years among the Indians, recently at Wild Rose. Panamint Mts. He gave me much new information.

In the afternoon I went with him about two miles on the road to Cross Lake. The only plant ever not recorded from this place before was

Atriplex polycarpa



June 9, 1891

Merlin, Inyo Co. Cal.

I spent today writing my  
journal.



June 14, 1891

Reeler, Inyo Co., Cal.

I spent today writing up my  
journal.



June 11, 1891.

Crystal Spring, Coe Mts., Inyo County, Cal.

Went to the Coe Mts. with Bath today.  
 Took Geo and the cart and Buckshorn.  
 We followed the Panamint road to the  
 upper Stone Corral and then took  
 the right hand road towards Coe.

Altitude of the lower Stone Corral 4665 ft. = 1415 m.  
 = 4800 ft. = 1463 m.

Summit of first canon

3930  
 = 4300 ft. = 1311 m.

Lower mesa, first green

3330  
 = 4650 ft. = 1413 m.

Lower mesa, second green

3650

This is just a few feet higher than  
 the upper Stone Corral.

Found Artemisia tridentata and Quercus

in a wash, 6250 ft. = 5800 ft. = 1675 m.  
 = 5800 ft. = 1765 m.

Artemisia tridentata abundant 6250

The following plants were seen after  
 entering the wash a mile or two  
 above the lower Stone Corral.

Abies (collected at Crystal)

Quercus oblongifolia oblongifolia

Quercus tessellata

Quercus occidentalis

Artemisia tridentata oblongifolia



Argemone hispida

Artemisia spinescens

           tridentata

Artemisia arbuscula

Artem. (torreyana) mohavensis

Tetragelaea

Chrysothamnus

           capitata

           lymanthifolius

           phyllanthoides

           polycephalus

Ephedra viridis (torreyana) paniculata

           (subsp.) paniculata

Chamaecrista

Chamaecrista bracteata

           viridis

           thunbergii

Helianthus polycephalus

           canadensis ==

Echinocystis polycephalus

Encelia frutescens

Ephedra viridis



Ephedra nevadensis

Eriogonum bellidifolium

Eriogonum (yellow)

" same as 131

Eriogonum inflatum

flum. stellata

trichophora

uniforme

same as 869

same as 871

Eriophyllum fringilei

Euphorbia albomarginata

Eurotia lanata

Franseria dumosa

Gilia floccosa

" latifolia

" matthiasii

" setosissima punctata

" tenniflora

" inconspicua D

Grayia polygaloides

Gutierrezia

Helianthus (like Synedrella)

Holcus nodosus = Elymus citarion



Hymenoclea salsola

Kochia, (?) no 900, americana

Argemone lutea

\_\_\_\_\_ circumscissa

Loma \_\_\_\_\_

Luzia

Lepidium fronctum

\_\_\_\_\_ basicaule

Lupinus same as 817

Lycium andersonii

\_\_\_\_\_ cooperi

Lycopersicon esculentum

Mimodora spinescens

Mentzelia

Mimulus californicus

\_\_\_\_\_ multiflorus pubescens

Nicotiana trigonophylla

Oenothera brevis

\_\_\_\_\_ caespitosa

\_\_\_\_\_ gambelii

\_\_\_\_\_ scapellata

\_\_\_\_\_ serotina purpurea

Ononis bacillaris



Obolentia echinosarpa

" rutila  
membranacea

Oxypholis (cuspidata) (ante the Yucca)

Oxytheca perfoliata

Palafolia linearis

Pectocarya setosa

Peritoma same as 922)

Petalogyne

Pseudanemum, same as 145, parishii

Phacelia fraxinifolia

" ramosissima

Pinckia tridactyla glandulosa

Salizaria mexicana

Salvia columbariae

Sium canadense

Sphaeralcea, scaberrima, munroana

Stanleya pinnatifida

" glabra

Stephanomeria

Thlaspi

Tetralymna canadensis

" spumosa

Thelypodium II same as 922 = Caulanthus pilosus

Triclisia = Triodia pulchella, linearis (baccifolia) arborescens



gital spring, Coos mts., Inyo Co., Cal.

Altitude reading, camp 5:10 AM.  $7160 = 6000 \text{ ft.} = 1830 \text{ m.}$   
 $= 6200 \text{ ft.} = 1890 \text{ m.}$

I collected up to an altitude of 7450 (10:15 AM)  
 mostly above the spring in the forenoon.  
 $= 6000 \text{ ft.} = 1830 \text{ m.}$

Altitude reading at camp, 11:30 AM., 7300

In the afternoon I went to the first mine southward from the spring, about 1/2 mile, and ascended this to an altitude of 7670 ft.  $= 6400 \text{ ft.} = 1950 \text{ m.}$   
 This was somewhat above the line of lower pines on north slopes, but all the trees have been cut off for firewood.

Altitude reading at camp 7400 (4:30 PM.)  $= 6000 \text{ ft.} = 1830 \text{ m.}$

Following are the plants collected, my collection of some of them were collected yesterday and others collected today.



Jan 13, 1891.

Kearney, Inyo County, California.

We left Crystal Spring this morning and took the road to Darwin, and from there proceeded by the stage road to Kearney.

Altitude reading at Crystal Spring 7300 = 6000 ft. = 1830 m.

crossing of wash from Crystal Spr.

and first road

Upper Larrea mexicana

Lower Yucca arborescens

Darwin

Upper Larrea mexicana

Summit Darwin - Kearney

Stone Corral

Summit of Cañon

Kearney

6975 = 5780 ft. = 1735 m.

= 5000 ft. = 1525 m.

6230 8:20 A.M.

= 4200 ft. = 1280 m.

5350 8:25 A.M.

= 4840 ft. = 1475 m.

5700 9:15 A.M.

= 5700 ft. = 1735 m.

6300 10:20 A.M.

= 5300 ft. = 1615 m.

6300 11:00 A.M.

= 4550 ft. = 1385 m.

5750 13:55 m.

= 4450 ft. = 1355 m.

5650 3:20

= 3622 ft. = 1105 m.

7100



Jan 14, 1891



June 2 1892



Jan 16, 1891



June 18, 1891



June 18, 1891



June 19, 1896.

Marble Ranch near Maricopa, Yuma Co., Cal.

We left Los Pinos this morning at about seven o'clock, Dr. Merriam, Mr. Palmer, Beth and I with Mr. Graff for Lemont. Beth and I rode in the cart after Geo.

We went down the west side of Owens Lake hoping the region was rich in at some points about a hundred feet above the level of the lake. The region has no upper Yuma but this plant is wanting except in the immediate vicinity of some of the canyons. The first seen was near Cottonwood, and from that place southward it grew about the rate on which in greater abundance. It is now in fruit and the white seed pods give the plant a gray appearance that makes it not very easily distinguishable at a distance from the Stripley brush.

The most abundant shrubs are



and Tanacetum densum  
Atriplex confertifolia, with, in some  
 parts of the way, Astragalus tomentosus,  
 and the following occur frequently

Lycium cooperi Rosa pratincola

Tetralix americana

sp. sp.

Amphispappus sphaeranthus

Composite, seen on 20. = Aphlopappus <sup>Tactis</sup> mon-

The most common trees are  
Fraxinus Populus  
 and Salix Salix and other  
 small tree species.

The most common shrubs are the richer soil  
 especially about the water at the  
 lower end of the lake B. gelosa g.  
salina and B. Douglasii are abundant.

The country has been much  
 traversed by sheep so that  
 nearly all the natural vegetation  
 is gone.

The following plants were also  
 seen.



Lamproloma californica

Argemone albida

Delphinium monardae

Antennaria spinescens

Aster (Cortisfolia) mohavensis

Asclepias canescens Asclepias purpurascens

Asclepias polycaulis

Asclepias (near Asclepias Purshii)

Azalea

Penstemon confertus (near Penstemon)

Penstemon confertus

Penstemon obtusifolius

Penstemon

Penstemon polycaulis

Penstemon

Penstemon vitellinus

Penstemon maritimus

Penstemon fontinalis

Penstemon inflatus

Penstemon fasciculatus

Penstemon (near Penstemon)

Penstemon albertinus

Penstemon

Penstemon linearis & Penstemon



Favosus coriacea

Gilia floccosa

" matthewii

Glycyrrhiza

Tragia polygaloides

Relbunium caracasense

Terna

Lycium same as 900 = Lotus oblongifolius

Lotus (same small)

Neoburtonia affinis (L.)

Conium maculatum

Opuntia basilaris

" echinocarpa

Pectinopogon

Hydrogon monobolium

Ranunculus umbellatus

Rosa

" laurifolia

" longifolia

Scutellaria

Scutellaria

" frutescens

Scutellaria (Cissampelos)



Sesuvium portulacastrum

Sisymbrium irio

Sium = Berula angustifolia

Spiraea

Sporobolus airoides

Stachys pinnatifida (1 inch high)

Stachys affinis

same as 229

Trifolium



















Sunday. June 21, 1881

Concha Creek, Kern County, Cal.

We left camp at six o'clock this morning, proceeding southward along the stage-route till opposite Hobbs' Pass. We then took the road to the pass and reached the place at about seven o'clock.

The lowest reading on the stage road was 3300 ft and at this altitude and for a few hundred feet above the main vegetation was Larrea mex-  
icana, Franseria dumosa, and Dalea  
gambelii.

The following altitudes were taken

This morning's camp (6100)	= 2350 ft. = 715 m.
Indian Wells (11:00)	= 2606 ft. = 795 m.
Elmore and Miller's Camp	= 3050 ft. = 930 m.
<u>arborescens</u>	= 3400 ft. = 1035 m.
<u>arborescens</u>	= 3750 = 1145 m.
<u>arborescens</u>	= 3800 = 1160 m.
<u>arborescens</u>	= 4000 ft. = 1219 m.
<u>arborescens</u>	= 4200 ft. = 1280 m.
<u>arborescens</u>	= 4900 ft. = 1495 m.



Summit of peak and adjacent  
ground on south slope

= 5722 ft. = 1590 m.  
(5500)

On the west slope of the peak, going down  
following alluvial cone

ca arborescens but afterward goes lower

= 4900 = 1445 m.  
(500)  
= 3904 = 1190 m.  
(500)

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens (3500 ft. = 1067 m.)

ca arborescens filosa

ca arborescens (3500 ft. = 1067 m.)

ca arborescens

ca arborescens

ca arborescens (3500 ft. = 1067 m.)

ca arborescens cuneatus



Longitarsus rubus

Cucullia peruviana

no id

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no viridis (in the field) <sup>Edwards</sup>

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana

no peruviana = Lotus procumbens

no peruviana

no peruviana (Canebrake Ranch)



Juncus maritimus

altissimus (spring - east slope of divide)

Scirpus californicus

Scirpus nigricans

Lidos artem agraratum (first seen near [unintelligible] Creek)

Lidos stans ornatus

Lycium andersonii

Yucca arborescens

Yucca filifera

Yucca multiflora pubescens

Yucca californica no 10/5

Yucca

Yucca multiflora pubescens

Yucca multiflora pubescens

Yucca multiflora

Yucca multiflora

Cyperus (unifoliate) membranacea

Pentstemon (shrubby & petrous)

Pentstemon

Pentstemon arvensis

Phlox (first seen near [unintelligible] Hills)

Poa monophylla

Poa sibiriana

Poa jeffreyi

Polygonum maritimum



Phacelia modestissima

Rhaphanistrum (commonly out of the woods)

Fraxinus parvifolia

Fraxinus viridis

Urtica dielsii glandulosa

Commelina spicata

Rosa

Rumex cristatus

Salix lasiandra

Salix lasiandra

Salix lasiandra

Salix lasiandra

Salix lasiandra

Salix lasiandra

Scirpus pusillus (growing on east slope of hill)

Scirpus pusillus

Betula = Betula angustifolia

Betula angustifolia

Betula angustifolia

Betula angustifolia

Betula angustifolia

Quercus (bicolor) arborescens

The most frequent shrubby plant of the woods is - Corylus but in beds over with ambrosia etc.



large. The altitude is too great for the Lawsonia felt on that several shrubs characteristic of it do not appear on the west side of the divide.

The most conspicuous difference in general appearance of the vegetation on the lower slopes on the west of Pinus sabiniana and Pinus californica in the higher altitudes is that not appearing on the west slope of the mountain is Pinus jeffreyi.

In the ascent to Indian Pass we encountered a strong wind which continued until we reached the camp. This was the prevailing wind in evidence by the trees and shrubs bending to the westward on both slopes of the pass.



June 22, 1897

Ranch 4 miles south of Reno, Nev., Cal.

We left Bonbrake Ranch this morning, following the main road downward until we reached the bottom of the valley on the south fork of Kern River. We followed down this branch of the river until we reached the fork and then turned southward up the North Fork to this place.

The road continues to show from the west. Along the south fork the vegetation is not so prominently cañon-like along the south fork southward.

Arborescens is found in abundance in the valley bottom near its junction with the South Fork, and nearly all the characteristic vegetation in the desert is represented.

This valley of the South Fork of the Kern River is a transition region between desert and mesa. From the line of partial deserts lying at the western limit of the mesa.

The following plants are characteristic of the desert region.



of the summit

Larrea tridentata

Yucca elata

Atriplex confertifolia

— polytricha

— torreyi

Quercus agrifolia

The following may have grown on  
short distance but I am not certain

Acrochloa setacea

Grassia polytricha

Parthenocissus vitacea glandulosa

Salicornia virginica

The following species I have seen and will  
then mentioned them among the desert  
vegetation

Antennaria tridentata

Atriplex confertifolia

Parthenocissus vitacea filosa

Emmenanthe fontinalis

Echinospermum albidum

Hymenocallis salsola

Lycium andersonii

— setosum



Opuntia echinocarpa

Prosopis andersonii

\_\_\_\_\_ fasciculata

Shrub-like shrub = Aplopappus interior

Thurbergia spinesca

\_\_\_\_\_ comosa

Between the following list may not be especially characteristic of the desert

Baccharis Douglasii

Eriogonum fasciculatum

Larrea tridentata

Larrea ornatus

Opuntia basilaris

Baccharis Douglasii

Larrea Douglasii

The more than one of the following genera are

Opuntia cuneatus Sambucus etc.

\_\_\_\_\_ divaricatus

Prosopis juliflora

Phoradendron flavum macrophyllum

Pinus sabiniana

and after leaving the genera the following

Cercis occidentalis

Eriogonum glutinosum



Mimulus glutinosus

Quercus wislizeni fontana

Rhamnus californica

Yucca whipplei

Alnus rhombifolia

The five plants that are known not to go over all belong to a belt not represented on the west slope, so that the entire desert flora practically goes over to the south fork of the Kern River at its junction with Conecreek Creek. From this point down the river there is little shrubbery, the land being all cultivated and the hillsides covered <sup>mainly</sup> with Pinus sabiniana, Juniperus virginiana, Lycium fontinale and the two Ceanothus, Ceanothus cuneatus and Ceanothus divaricatus.

On the hill-slopes south of Kernville, Juniperus californica is abundant.

Following are the plants seen to-day in addition to those collected.

Alnus ac at Keller (along Kern River)

Alnus rhombifolia (along Kern River)

Amorpha alba

Quercus californica

Argemone hispida

Asteriscus tridentatus (to the feet of springs)

Radiolium coron



Atriplex canescens (in the yuccas, sparingly)

Audubertia incana

Azolla caroliniana (bottom of North Fork)

Bigelovia douglasii

Calochortis (bottom of South Fork)

Capsella

Castilleja

Ceanothus, no 1226, cuneatus

no 1232, divaricatus

Atriplex like A. canescens

Chorizanthe no 1233

Cleome (bottom of south fork)

Conium same as 1185

Colea

Cuscuta peruviana

peruviana

Cuscuta

Datura meteloides

Thurberia montana

Elymus canadensis montanus

Erigeron peruviana

Ephedra montana

E. setacea same as 1182

Eriogonum montanum (same as the fork)



Eriogonum nelsonii no 1031

" (similar to angulatum, same at Case)

frutescens (down to the fork)

Eriogonum cicutarium

Euphorbia albomarginata

" pedunculata

Fraxinus

Fraxinus californica

Glycyrrhiza lepidota

Heliotropium curranianum

Hordeum guttatum

Hymenocallis serotina (on lower gulches)

Juncus mexicanus (table slopes)

Juncus conformis (down to the fork on fire)

Lemna

Lupinus albus serotinus

Lupinus ornatus (North Fork River)

Elymus ambrosioides

" cocker

Marrubium vulgare

Medicago indica (yellow) (South Fork River)

Minuartia lutea

" glutinosus

Nicotiana



*Opuntia basilaris*

*calyciflora*

*Penicillium* (abundant, 8 specimens)

Phoradendron flavescens (on cottonwood) macrophyllum

*sibiriana*

Phlogon - a phren

P. parviculata

Lumina oligina fontana

Rumex crispus aquaticus

Cyanobacteria*Rumex crispus*11. *Hydrocephalus**Salix lasiocarpa*

Barbara

*Scirpus lacustris occidentalis*

Scaphium californica

Done

London.



Sporobolus airoides

Hemiphaea pinnatifida

Tetradymia comosa

                  spinesa

Trifolium

Trifolium latifolium

Urtica holosericea

Quercus (brevifolia) arborescens

Quercus latifolia (little or south side)

Juniperus horizontalis

Lawsonia alba = Aplopappus interior

The mountains on South Fork bottom are covered with a fine, closely-grained coat of Quartzite.

Altitude readings on peaks

                  Peak 770 A.M.

arborescens

Quercus wislizeni

Quercus wislizeni

= 3904 ft. = 1190 m.

= 2900 ft. = 885 m.

= 2600 ft. = 792 m.



June 2, 1881

Sanilac, Kern County, Cal.

We left Kernville soon after noon today, leaving our horses at and very early in the morning. We took the road to Caliente, following our yesterday's course to the fork of the river and going down and then up a spur of the Sierra into Mother's Basin, and over another ridge to the valley in which we are now. The river basin is about a mile or two below the fork and was our camp for the remainder of the journey.

The change to higher floor is complete as we begin to ascend the first division above south of the fork. The characteristic vegetation of the high slopes after leaving the valley bottom is

Pinus sabiniana

Juniperus californica

Quercus engelmannii

Artemisia douglasii

Quercus agrifolia 1840 cuneatus

Quercus agrifolia 1840 divaricatus

Pinus sabiniana



and higher up in the spec

Cercocarpus parvifolius

Following is a list of the species seen

Abies douglasii

Amelanchier alnifolia

Arceuthobium on Pinus coulteri

Argemone hispida

Asterina tridactyla

Asclepias, no 1072, eriocarpa

Azolla caroliniana (North Fork of River)

Euphorbia douglasii

Castilleja

Senecio same as 1026 cuneatus

\_\_\_\_\_ , 1032, divaricatus

Cercocarpus parvifolius no 1033

Chamaedorea (Hamillet)

(not albino)

Chorizanthe same as 1033

" no 1042

Cnicus same as 1105

Coldenia (early bed of River River)

Cuscuta peruviana

Cuscuta

Cypripedium (North Fork of River)



Datura meteloides

Dicentra chrysantha

Dicentra maritima

Emmenanthe penduliflora no 1056

Encelia frutescens

Ephedra <sup>viridis</sup> (dark green) (on the divide)

Eriogonum setigerum

Eriodictyon glutinosum

Eriogonum nudum

no 1063

frutescens

Erodium cicutarium

Erodium cicutarium (orange-fls)

Eriodictyon same as 1115

Euphorbia albomarginata

Franseria hookeriana

Franseria californica (on the divide)

Gilia no 1099

105

Synophrase angustata

Helianthus annuus

Hordeum jubatum

Hordeum

Loa waltersii (Harold)



Juncea bufonius (North Fork Kern River)

Juncea sinuata

Juniperus californica

Krynitzkella no 1058

Krynitzkella , 1058, intermedia

Lepido pastum agrostum

Lupinus no 1047 = Psoralea californica

Marrubium vulgare

Anthemide cotula

Melilotum (parviflorum) indica

Mimulus glutinosus

no 1038

1039

Nema same as 1023 = Lemmonia californica

Nasturtium officinale (Kern River)

Nasturtium

Oenothera glandulifera

Opuntia basilaris

Pectisaga , no 1055, setosa

Pentstemon

Phoradendron flavescens villosum

Pinus sabiniana

Polygonum aviculare

Populus



Altitude readings to-day are as follows:

Kernville about noon (3450) = 2550 ft. = 775 m.  
= 3750 ft. = 1145 m.

Summit of spur of Sierra (4550) 3 PM.

Valley of Havilah 6 PM. (1100) = 3100 ft. = 945 m.

Havilah (1150) = 3150 ft. = 960 m.

Polypogon monspeliensis

Prunus fasciculata (on the divide)

Quercus wislizeni fruit.

1. \_\_\_\_\_ (caerulea) douglasii

1 Rhamnus californica

Rhus diversiloba

Ribes, no 1062, leptanthum

Rosa (Horn River)

Ulmus

Sabbatia (Horn River) = Erythraea

Salix lasiocarpa

Salvia columbiana

Sambucus

Senecio douglasii

Solanum gante no 1069

Lithodora conosa (on the divide)

Rupicola

Urtica holosericea

Xanthoxylum sp.

Yucca diffusa

Senecio-like shrub = Aphelocoma interior

Bigelovia douglasii - characteristic of the South Fork  
valley west of the Yucca arborescens



June 24, 1914

Ranch 7 miles east of Caliente, Kern County, Cal., on the  
Caliente Tehachapi road.

We left Visalia this morning crossing a  
divide into Walker's Basin, then another divide into  
Caliente Valley, and from Caliente <sup>we went</sup> eastward on the  
Tehachapi road to the present camp.

The whole country belongs to the *temo-*  
*pura*.

Following is a list of the plants seen

*Quercus californica*

*Alnus oblongifolia*

*Juniperus californica*

*Quercus californica*

*Quercus californica*

*Arctostaphylos* on Pine crest

*Yucca elata*

*Arctostaphylos* *lucida* (Caliente Valley)

*Arctostaphylos* *lucida*

*Arctostaphylos* *lucida* (Caliente Valley)

*Arctostaphylos* *lucida*

*Arctostaphylos* *lucida*

*Arctostaphylos* *lucida*

*Arctostaphylos* *lucida* (Caliente Valley)



Bigelovia anglica

Blitum same as 1029 = Chenopodium californicum

Calochortus no 1032

Capsella

Ceanothus, same as 1022 cuneatus

Ceanothus, same as 1022, divaricatus

Cercocarpus parvifolius (side north of Malibu Canyon)

Chorizanthe no 1034

1030

Cine, no 1032, californicus

1035

Cotyledon no 1006

Cuscuta peruviana

Cuscuta

Datura meteloides

Elymus condensatus torreyanus

Emmenanthe penduliflora

Erigeron aculeatus

Eriodictyon californicum

Eriogonum angulosum

fasciculatum

induratum

" same as 1008

Erodium sp. forsteri



Eragrostis vulgaris

Eragrostis same no 1115

Eragrostis scellata no 1084

no 1084

Erigeron californicus (divid. ant. y. ruber Ben)

ella no 1085

1105

Erigeron no 1099

Erigeron gibbatus

Erigeron glaber = Lotus glaber

Erigeron superius

Erigeron californicus

Erigeron glaber

Erigeron (Ruber Ben)

Lepido gibbatus applanatus

Lepidos

Mentzelia vulgaris

Mentzelia (ferrifera) indica

Mentzelia no 1085 disperua

Mentzelia glaberrima

no 1085

Mentzelia multicaulis (Lepid) (Bouche of Calicut)



Thamnia seana no 1022 = Lemmonia californica

Thamnia officinalis

Thamnia

Deschampsia no 1078 micrantha

\_\_\_\_\_ 1082 contorta

Opuntia basilaris (Caliente Valley)

Pachocarya pusillifolia no 1089

Pentstemon no 1095

1096

Phacelia (very large in rocks)

Phoradendron flavescens villosa

Pinus sabiniana

\_\_\_\_\_ jeffreyi

Poa annua

Polygonum anicum

Polygona monspeliensis

Populus

Potamogeton terrestris

Prostrata longicaulis (Caliente Valley)

Quercus multiligata pubescens

\_\_\_\_\_ (concolor) douglasii

no 1103

Ranunculus aquaticus (Washburn Lake)

Rhamnus californica



Altitude readings today are as follows

Havilah 6 A.M. (4150) = 3150 ft. = 960 m.

Crocosmia parvifolia (4600) = 3600 ft. = 1100 m.

Divide north of Malheur Basin (4200) = 4100 ft. = 1250 m.

Malheur Basin 11:20 (3200) = 3100 ft. = 945 m.

Summit south of M.B. — = 3850 ft. = 1175 m.

Sandwich Peak 2:30 (3600) = 2500 ft. = 760 m.

Caliente 5:00 (2275) = 1290 ft. = 395 m.

Pharisma cracea (Caliente Valley, both slopes)

Rhus (aromatica) trilobata

Rhus diversiloba

Ribes manzanillo no 1377

Ribes, same as 1062, leptanthum

Rosa

Salsola humboldtii

Salsola humboldtii

Sambucus

Scrophularia californica

Salpiglossis repens (Caliente Valley)

Senecio lauglassii

Solanum sp.

Solidago

Typha (Malheur Basin)

Urtica holosericea

Yucca sp.

Yucca whipplei (abundant to Caliente Valley)

Aplopappus interior (of Malheur Basin)

Aplopappus interior (abundant to divide north)

Platanus occidentalis (Caliente Valley)

Achillea umbellata

Celtis (Caliente Valley)

Myrica sp. = Balsamorhiza deltoidea



June 25, 1891

Cameron, Tehachapi Pass, Kern County, Cal.

We left camp this morning and followed the Caliente-Tehachapi road to this point passing over the Tehachapi summit, through Tehachapi Valley and the town of Tehachapi, to this point.

A prevailing west wind blows across the Tehachapi Valley, and through the pass.

Following is a list of plants seen to day.

Achillea millefolium

Artemisia californica (to Tehachapi summit)

Amaranthus albus

Arenaria californica

Antennaria cotula

Asclepias arcea

" vitacea

" mexicana

Astragalus, no 112, oöcarpus

Atriplex canescens

Ayella

Euphorbia longifolia

Blitum same as 112? = Chenopodium californicum [cum]

Bromus probably amphiphius

Salicostemon (Tehachapi Valley)



Euphorbia

Carex

Chama (C. intermedia at Cameron)

Chrysopsis

Chenopodium

Cnicus samoensis 1895

Cnicus 1895

Cnicus urtica (Tahachapi Lake)

Datura meteloides

Distichlis maritima (Tahachapi Lake - west to Cameron)

Eleocharis, no 1123, palustris

Elymus condensatus triloboides (forming native  
savanna - east end of Tahachapi Valley)

Ephedra nevadensis

Eriogonum setigerum

Eriodictyon platanum (west of Tahachapi Valley)

Erodium cicutarium

Erigeron acris 1895

Euphorbia oblongifolia

Franseria haskeriana

Franseria californica (west of Tahachapi Valley)

Glycyrrhiza lepidota

Gutierrezia serotina (Tahachapi Valley)

Gutierrezia serotina (abundant in Tahachapi Valley)



Platostemon curassavicus (near Tehachapi Lake)

Elymus sitenion  
no 1121 (abundant - Tehachapi Valley)

Urtica glabra (west of Tehachapi Valley) = Lotus glaber

Juncea macrocarpa

Juniperus californica (near Canyon)

Lathyrus no 1126

Lepidium frumentum

L. <sup>ido</sup>partum squamatum (west of Tehachapi Valley)

Lycium cooperi

Marrubium vulgare

Melilotus <sup>indica</sup> (penniflor) Tehachapi Valley

Mimulus glutinosus (west of Tehachapi Valley)

Mimulus (east end of Tehachapi Valley)

Mirabilis californica (red) (1 mile west of Canyon)

Nasturtium <sup>thymoides</sup> californicum (west end of Tehachapi Valley)

Nicotiana

Opuntia basilaris

Pentstemon same as 1122 (Tehachapi Valley)

Phacelia (large - rocks) (west of Tehachapi Valley)

Phoradendron flavescens villosum (in Tehachapi Valley)

Phoradendron <sup>virgatum</sup> ~~virgatum~~ (east end of Tehachapi Lake)

Pinus sabiniana (monument all around Tehachapi <sup>Valley</sup>)

Pinus <sup>giffreyi</sup> ~~giffreyi~~ ? (Tehachapi Mountains)

Platanus racemosa (to Tehachapi Valley)



Polygonum aviculare

Polygonum monspeliense

Populus (west of Tehachapi Valley)

Quercus wislizeni fontinalis

— lobata (from west of, into, Tehachapi Valley)

— (caerulea) douglasii

Ranunculus

Ribes leptanthum (same as 1882) (west of Tehachapi Valley)

Rosa

Rumex crispus

" no 1117

Ruppia maritima (Tehachapi Lake)

Salix lasiocarpa

Sambucus (west of Tehachapi Valley)

Sarcocolla arbutifolia occidentalis (Tehachapi Lake)

— maritima (Tehachapi Lake)

Sisymbrium consociatum (Tehachapi Valley)

Sium (west of Tehachapi Valley)

Solanum scaberrimum (1 mile west of Cameron)

Smilax east end of Tehachapi Valley

Urtica holosericea

Urtica, same as 1882, prostrata

Urtica whipplei (west of Tehachapi Valley)

Urtica like 1882 = Aphelocarpus interior



A tree of Quercus lobata in the western foot of Tehachapi Valley measured 19 ft in circumference at seven feet above the ground.

The floor of Tehachapi Valley is an interior one, the foot hills about the valley seen only at a distance, being covered with Pinus sabiniana & live oak, Pinus jeffreyi occupying the higher points. The valley bottom (about 6 x 10 miles) is all under cultivation, but appears to have been a shrubland area characteristic of the foot hills lands of the interior. No desert forms appear until one enters the canon that connects the valley with the Mojave Desert at the extreme eastern end of the valley. The first desert plants that appear are about a mile west of Cameron, as follows:

Atriplex canescens

Ephedra nevadensis

Juniperus sibirica

Larrea tridentata

Yucca elata

Sarcobatus - obovatus = Aplopappus interior

In the eastern end of the valley



is a shallow salt lake about 1/2 mile  
 length, which dries in summer leaving  
 large deposits of salt <sup>that</sup> ~~which~~ are not used com-  
 mercially. About this lake are a number  
 of interesting saline plants as may be  
 seen by the lists and the catalogue for today.  
Himaphysalis occidentalis was not seen there.







Sylvestris maritima - in the park

Chrysanthemum chrysanthemum

... maritima ...

... prostrata ...

Coronilla verticillata (by the stream in the park)

Antirrhinum montanum (by the stream in the park)

Erigeron philadelphicus

Helianthus scaberrimus

Impatiens pubescens

... floribunda ...

... virginiana ...

... angustifolia ...

... angustifolia ...

Androsace virginiana

Euphorbia alternifolia

Erigeron acris

Geranium macranthum

... macranthum ...

Gilia reticulata (by the stream in the park)

... reticulata ...

Geranium macranthum

Geranium macranthum

Geranium macranthum

Geranium macranthum

Geranium macranthum



Lab. Humei gracilis

Lipido sp. antem sp. antem

*[Signature]*

Hy. 1000 Hy. 1000 (Hy. 1000)



came down to the bottom of the river  
canyon.

On the north slope are occasional  
small patches of *Pinus monophylla*  
and some large trees about 100 ft. tall  
of *Pinus ponderosa*.

*Pinus arborescens* occurs scattered  
for a few miles along the river, and *Pinus*  
*flexilis* grows scattered on smaller patches  
simply mostly to the north of the river.

After leaving the river we crossed  
the river on a small bridge and then  
went on a small trail about 100 ft.  
N. of the bridge. The country was  
open and sandy and we saw a few *Pinus*  
and *Abies* scattered with *Pinus arborescens*  
in some places. There were a few  
springs with very little water  
and some small ponds. The  
*Pinus* and *Abies* were scattered.

Following is a list of plants  
seen this afternoon.  
*Pinus ponderosa* *Pinus arborescens*  
*Pinus flexilis* *Abies* *Juniperus*



Hebe (lentifolia) mohavensis

Hebe canadensis

Hebe polytricha

Hebe longifolia

Convolvulus sp. lutea sp.

Vernonia tricha

foliolosa

Hebe tricha

Hebe canadensis

Hebe polytricha

sp.

sp.

Hebe tricha

Hebe polytricha

Hebe tricha

Hebe canadensis

Hebe polytricha

Hebe tricha

Hebe polytricha

Hebe tricha

Hebe canadensis

Hebe polytricha

Hebe tricha



Lycium coferi

Opuntia basilaris

Opuntia schottii

Oryzopsis (crispata) membranacea

Opuntia perfoliata

Psoralea (obovata)

Opuntia arborescens

Salicornia peruviana

Salicornia subterminalis

Opuntia

Opuntia arborescens

Opuntia arborescens

Opuntia arborescens

Many kinds of shrubs have been seen  
some the part of the Mexican forest  
that stand on calcareous vegetation  
some, except the one which is able to  
stand up and flower during the  
time of deep snow. While in the  
at Yellow Spring on the summit of the  
27th) two large kinds of shrubs.







biriana

sabini sabini

Y arborescens 1

constitutions of the constitution

Myrica alba

Deer Creek W. Va. (Spring Creek)

Handwritten Name:

Staph. polyzona

\_\_\_\_\_ Foreign (at Miller's charge)

Bazooka godwin



Ruellia maritima (at Willow Spring & <sup>Crook</sup> Lake)

Elaeagnus (Willow Spring)

Elymus canadensis (Arizola Valley, abundant)

Urtica urens (in the quercus and section of)

Eriogonum retigerum (very abundant west of the quercus)

Eriogonum fraxinatum

" parviflorum

Erodium cicutarium (abundant throughout)

Euphorbia altissima

Salix lasiolepis (quercus and section of)

Lygus polydactylus (east of quercus)

Urtica urens (abundant west of the quercus)

Urtica urens (at Willow Spring & Crook Lake)

Urtica urens (very abundant west of quercus)

Urtica urens (?)

Urtica urens (Willow Spring)

Urtica urens (Willow Spring & <sup>Crook</sup> Lake)

Urtica urens (Willow Spring & <sup>Crook</sup> Lake)

Urtica urens (west of the quercus)

Urtica urens (east of the quercus)

Urtica urens

Urtica urens (Willow Spring)

Urtica urens (?)

Urtica urens (?)



Thermopsis vulgaris (west of the quercus)

Mimulus luteus (Willow Spr. & Crane Lake)  
[fields just west of the quercus]

Thysanotus multiflorus pubescens (abundant in

Nasturtium officinale (Willow Spr. & Teton Lake)

Nicotiana

Oenothera californica (most frequent west of the quercus)

Oenothera membranacea (crispata) as far west as Big Horn

Pentstemon (thin-leaved, shrubby, of pine woods etc.) [in quercus]

Pinus sabiniana (quercus in low soil)

Polygonum monspeliensis (very abundant west of

Potamogeton pectinatus (Crane Lake)

Quercus (rare)

Forestiera parvifolia

Rhus (small) (Willow Spr.)

Rhus (small) (Willow Spr.)

Rhus (small)

same as III

Quercus (small) (east of the quercus)

Quercus (small) (Willow Spr.)

Quercus (small) (Willow Spr.)

Quercus

Quercus (Willow Spr.)

Quercus (small) (quercus in low soil)

Quercus (small) (quercus in low soil)



*Trifolium* (Willow Spring)

*quercus* (*brunifolia*) *arborescens*

     *shippelii* (near Little Rock, Lincoln Co.)

*gambellii* *palustris* (Willow Sp. + Coase Lake)



June 24, 1911

Fort Tyeon, Kern County, California

We left camp early in the morning and walked  
to Tyeon at about noon, passing Kern  
Station and Lemoore Lake.

We camped on the old granite gravel under-  
neath the mountain side.

June 25, 1911

Fort Tyeon, Kern County, California

I went to camp today, doing a little  
collecting plants.

June 26, 1911

Fort Tyeon, Kern County, Cal.

I remained at camp today writing up  
notes.

July 1, 1911

Fort Tyeon, Kern County, Cal.

I went to Lemoore Lake today and  
walked completely around it. Little was found  
to collect. The lake proved rather uninteresting  
botanically. It is about a mile long and over







Pseudotsuga mucronata. This is about the lower limit of the tsugata species in this locality. The flowers are very scarce.

July 2, 1891

Fort Lyon, Kern County, California

I remained in camp today collecting and writing notes.

(Independence Day) July 4, 1891

Fort Lyon, Kern County, Cal.

Went to a Mexican ranch above the lake for provisions.

(Sunday) July 5, 1891

Fort Lyon, Kern County, Cal.

I remained in camp today.

July 6, 1891

Fort Lyon, Kern County, California

I went collecting today at Johnson's Creek on the mountain just back (south) of Fort Lyon. It is about 500 ft above the fort, where Picea mariana is abundant and the



Asculus californica

buckeye & disappears, while the most abundant oak is Quercus chrysolepis.

July 2, 1891.

Fort Lyon, Kiowa County, Cal.

I went today up Canyon, which enters Canada de las Animas from the south about a mile east of Fort Lyon; and followed it to its head. I then ascended the mountain slopes to the westward where, on a north-sloping draw, I found Abies concolor. I then kept on up the steep slope southward through the scrub-oaks and pines to the summit of the peak. From this point Mt. Pitkin is visible two or three miles southward, the San Juan Mountains southward, Carter Lake and Snake Valley eastward, Mt. Whitney northward and the Saline Plains northward.

It is common along its northern edge  
and carries a dense growth of Prunella  
sp., Amelanchier, Penstemon vestitus











July 10, 1891

Tijon Ranch, Kern County, Cal.

I remained in camp this morning  
collecting plants and writing notes. In  
the afternoon I went to General St.  
after the mail.

July 11, 1891.

Tijon Ranch, Kern County, Cal.

We left Tijon Fort this morning  
at about half past ten, and went  
down Cañada de las Uvas to the Tulare  
Plains, following the direct road to  
Roe's Station. From that point we  
turned to the right and proceeded to  
Tijon Ranch.

Near the bottom of Cañada de las  
Uvas the oaks become scattered and  
finally disappear entirely. The ground  
is covered, in most places sparingly,  
with dried grass; while the only shrub  
seen was Jaumea arborescens. In the  
cañon, along the stream, occur be-  
sides the oaks, Acer negundo  
(Negundo californica), Vitis



californica, Populus monilifera, Platanus <sup>rac-</sup>emosa.

The plain itself is an even gentle slope, at this part of it, sparingly covered with grass and singularly devoid of shrubbery. The few shrubs that do occur with the identifiable <sup>herbaceous</sup> plants that are characteristic are Helianthus annuus, Croton californicum, Grindelia, Eremocarpus setigerus, Mirabilis multiflora pubescens.

In the vicinity of Tejon Ranch there are large groves of white oak (Quercus lobata), and along the creek that flows past it are cottonwoods (Populus monilifera) and dense masses of wild grapes (Vitis californica), with climbing the trees and trailing over its banks and forming hummocks three or four feet high.

(Sunday) July 12, 1891.

Tejon Ranch, Kern County, Cal.

Mr. Palmer and I rode to-day to Tejon Pass following up the cañon that furnishes water for Tejon ranch, and ascending one of the



A few pines (Pinus monophylla) occur with Pinus sabiniana below the yellow pines.

higher divides. An old wagon road extends to within about a half-mile of the summit, and beyond this point the ascent is altogether too steep for a road.

At the lower end of the canon the common trees are Quercus lobata, Q. wislizeni frutescens, some of them attaining a diameter of more than a foot, Platanus racemosa, Pohulus monilifera, P. trichocarpa. With these are found a few trees of cedar, Libocedrus decurrens.

At 3000 ft (computed), Pinus sabiniana ~~coulti~~ <sup>sabiniana</sup> begins and soon becomes here Digger-pine or bull pine, ~~is~~ abundant.

At an altitude of about ft, Artemisia tridentata begins and continues to be the most characteristic shrub up to about the summit of the divide.

The next zone is that of Pinus ponderosa. It contains also as a characteristic tree, Abies concolor, and higher up Pinus lambertiana. Two easily distinguishable forms of Pinus ponderosa occur, one at a lower altitude, a tall large tree, lanceolate or triangular-lanceolate in outline, with an acute top, and small cones with thin narrow scales. One of the larger trees



was 16 ft 7 in in circumference. The other form grows at a higher altitude (from the summit to about three hundred feet below), and is a smaller tree with usually oblong outline and a rounded top (apparently due to the continued tendency of the uppermost shoots to be broken by the wind) and a much larger heavier cone. This latter form is the same seen on Frazer Mountain and appears to be the true Pinus ponderosa jeffreyi.

The computed altitude of the summit that we reached is 5800 ft. From this point we could look down upon the western part of the Mojave Desert in the direction of Willow Spring. Neither Mojave Butte nor the mountains south of Antelope Valley could be seen.

We descended by the same route.

The altitude of Tejon ranch was called 1450

July 13, 1891.

Bakersfield, Kern County, Cal.

We left Tejon ranch this morning and took the direct road from there to Bakers-



field, going into camp about a quarter-mile north of the town.

The road across the plains is very level and hard, in some places somewhat dusty and with but a mile or two of sand. There are no trees until one approaches Bakersfield, where they occur along the ditches and streams.

The higher portions of the plain, near Tejon ranch, are characterized by the same plants mentioned in the journal for the 11th inst. with the addition of Asclepias erosa.

The lower portions are moister and somewhat alkaline and are characterized in various parts by Atriplex polycarpa, Distichlis maritima, Salicornia ambigua, Spirostachys occidentalis, Sporobolus airoides, Suaeda suffrutescens, Suaeda and Frankenia grandifolia.

A portion of the higher plain towards Tejon ranch was characterized by the presence of Opuntia basilaris.

At Bakersfield we met Dr. & Mrs. Merriam & the baby. Dr. Merriam has been ordered to the Pribilof Islands and leaves for Visalia late to-night.



July 14, 1891.

Bakersfield, Kern County, Cal.

I remained in camp to-day making notes and cataloguing plants. Mr. Palmer has gone to San Francisco with Dr. Merriam.

July 16, 1891.

Poso, Kern County, Cal.

Beth and I, with Mc Grath, left for this point to-day.

The teamster was misdirected as to the road and shortly before noon we reached Poso Station, on the Glenville stage line. We therefore turned down the bed of the creek for two or three miles at which point we came upon the old road along Poso Creek. This we followed for three or four miles more after which it turned north<sup>west</sup>ward from the creek to the station Poso on the Southern Pacific R.R. The entire distance from Poso Station to Poso is about 14 miles. We went into camp at Poso.

The road from Bakersfield to Poso Station after crossing the Kern River bridge lies over



dry clay foothills almost entirely bare except for the now dead and closely grazed annual vegetation.

Some of the washes contain a leafless and seemingly dead shrub, and the only other scant vegetation is Asclepias erosa, Eremocarpus setigerus, Grindelia, Opuntia, and an occasional Cucurbita peruviana and digitata.

In the vicinity of Poso Station were seen also Isomeris arborea, Atriplex canescens, Mirabilis multiflora pubescens.

Poso Creek itself is at this season quite dry, and its bed is filled with a fine very glistening sand. The fall of the stream is very gentle, and no gravel is carried along in it. The trees along its banks are cottonwoods (Populus monilifera) and willow (Salix nigra) and sycamores (Platanus racemosa).

The plains beside Poso Creek are the same in vegetation as those described.

Many ranches through this region are deserted. The divide between Bakersfield and Poso Station is about eight hundred feet higher than Bakersfield.



July 16, 1891.

Near Tipton, County, Cal.

We left Paso this morning and proceeded along the railroad to this point, camping by a ranch on the bank of Tule River, about  $1\frac{1}{2}$  miles north of Tipton.

The country traversed is a dry, hot, clay plain, and like that seen yesterday is devoted to the raising of barley and to grazing. There is such a scarcity of water that fruit and alfalfa can scarcely be grown.

Tule River is dry and bears along its banks a few white ~~July 17~~ oaks (*Quercus lobata*) and sycamores.

July 17, 1891.

Visalia, Tulare County, Cal.

We continued this morning along the railroad to Tulare and then followed the motor road to Visalia, reaching here about eleven A.M.

As we approached Tulare, white oaks, <sup>*Quercus lobata*</sup> became frequent in the fields and there was



every evidence of a moist soil. Fruit is quite generally cultivated, and alfalfa fields as well as barley became numerous.

Between Tulare and Visalia all the land is fenced, and devoted to agricultural purposes as noted above. The natural pastures are of salt-grass, Distichlis maritima with a little Juncus mexicanus intermixed.

We went into camp about a mile and a half north and slightly ~~west~~<sup>east</sup> from the town on a ranch worked by Mr.

July 18, 1891.

Visalia, Tulare County, Cal.

I went to town this morning and this afternoon wrote up notes and catalogue.

(Sunday) July 19, 1891

Visalia, Tulare County, Cal.

Beth and I went to church this morning, and in the afternoon remained in camp.



July 20, 1891.

Visalia, Tulare County, Cal.

I went collecting this morning along the road as far as the river, northward from camp about a half-mile. In the afternoon I catalogued specimens and later went to town.

July 21, 1891

Visalia, Tulare County, Cal.

I collected a few plants to-day near the camp, and spent the rest of the day cataloguing and writing notes.

July 21 to 24, 1891.

Visalia, Tulare County, Cal.

These days were occupied in outfitting for the Mt Whitney expedition. Mr. Bailey, with Dr. Fisher, arrived from Bakersfield and Mr. Palmer from San Francisco.

July 25, 1891.

Three Rivers, Tulare Co., Cal.

We left Visalia this morning, Bailey, Beth, and myself, with two packers, and proceeded



by the regular Mineral King road to this point.

Until we reached the foot-hills the vegetation was similar to that about Visalia. In the first foot-hills Quercus douglasii began. Three Rivers lies at about ft, according to Mr. Bailey, above Visalia. I was thrown from my horse, and my an-eroid damaged, just before lunch.

(Sunday) July 26, 1891  
~~Cane~~ <sup>Kane</sup> Flats, Tulare Co., Cal.

We left Three Rivers this afternoon at about 1 o'clock, after a portion of the forenoon had been spent collecting about Kaweah River opposite, or a short distance below, Three Rivers. This place is, according to Mr. Bailey, about ft higher than Visalia.

July 27, 1891.  
 Tulare Co., Cal.  
 First Sequoia camp, Mineral King Road, ✓

We reached this place this afternoon and went into camp by the stream that flows down the cañon into Kaweah River. Here I saw for the first time Sequoia gigantea.



July 28, 1891

## First Sequoia camp.

To-day Mr. Bailey and I went down the road about  $\frac{3}{4}$  mile to a hog-back with an old house on it, and turned down the steep slope through the chaparral to the river, descending about 1000 ft below camp to the mouth of the stream that flows by it. We retraced our steps by nearly the same route. In the afternoon I remained at camp cataloging specimens.

July 29, 1891.

Tulare Co., Cal.  
Mill camp, Mineral King Road.

We left camp soon after lunch to-day. I spent the forenoon collecting in the cañon near camp to an altitude of 200 ft above it. After lunch we proceeded to this point about  $\frac{1}{2}$  mile above the saw-mill.

July 30, 1891.

Mineral King, Tulare Co., Cal.

This morning I catalogued specimens and collected a few things about camp. At about three o'clock we left camp and



and proceeded to Mineral King, camping about  
 $\frac{1}{2}$  mile above the old hotel, on the south bank  
of the stream under some evergreens.











+ Fustian

~~more complete~~

~~than~~







